

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1 – 31 cancelled.

32. (Currently Amended) An apparatus for producing semiconductor devices comprising: a booth; a flux vessel disposed in said booth; a molten-solder vessel arranged in said booth so that gold bump elements provided on the electrodes of a semiconductor element can be immersed in said vessel[.,,]; a vertically movable support member for supporting said semiconductor element; means for supplying inert gas into said booth; and means for detecting the oxygen concentration in said booth.

33. (Canceled)

34. (Previously Presented) An apparatus for producing semiconductor devices comprising a molten-solder vessel arranged so that gold bump elements provided on the electrodes of a semiconductor element can be immersed in said vessel, and a support structure for hanging said semiconductor element, said support structure including a hanging mechanism comprising at least two mutually movably coupled coupling members so that the semiconductor element can float on the molten solder.

35. (Original) An apparatus for producing semiconductor devices according to claim 34, wherein said at least two coupling members comprise members that are coupled together as in a chain.

36. (Canceled)

37. (Previously Presented) An apparatus for producing semiconductor devices comprising a molten-solder vessel arranged so that gold bump elements provided on the electrodes of a semiconductor element can be immersed in said vessel, and a support structure for holding said semiconductor element, said support structure including a holding mechanism comprising at least two mutually movably coupled coupling members so that the semiconductor element can float on the molten solder and a pump-type adsorption head having an open suction hole for holding the semiconductor element.

38. (New) An apparatus for producing semiconductor devices according to claim 32, wherein said means for supplying inert gas includes a gas-pressure buffer member.